

REMARKS

Upon entry of this supplemental amendment, Claims 1, 2, 5, 11-13, 15 and 19 will stand as cancelled. New Claim 22 is added. Claims 3, 4, 6-10, 14, 16-18 and 20-22 will be in the application.

Examiners Lish and Hendrickson are thanked for the extensive interview courteously granted Applicants' representative on June 17, 2003. The following includes the substance of the presentation as regards the claims now in the application.

The claims as here amended specify the presence of ruthenium with an alkali metal (or, in the case of Claim 22, alternatively an alkaline earth metal) held on a carrier of titania and alumina.

Claim 3 specifies a titania to alumina ratio of 0.1/94.9 to 90/10, a ruthenium content of 0.05 and 10% by weight of the carrier and an alkali metal content between 0.1 and 10% by weight. Basis for these proportions appears on page 10, in the sentence starting at line 16, in the sentence bridging pages 12 and 13, and in the first sentence on page 16.

The claims retained do not require the presence of an alkaline earth metal, except for new Claim 22 which recites it as an alternative to alkali metal.

Claim 4 depends from Claim 3 and itemizes the alkali metals that may be used. Claim 6 specifies a method for producing the catalyst, the proportions of ruthenium in the catalyst being specified, wherein a solution of the ruthenium and a solution of the alkali metal is applied. In Claim 7, the solution is specified as a mixed solution.

Claim 8 is rewritten to be in independent form and specifies the catalyst as defined in here amended Claim 3.

Claims 9 and 10 depend from Claim 8. Claim 9 specifies sources of the gas of essentially hydrogen and Claim 10 specifies that the hydrogen containing gas is for fuel cells.

Claims 14, 17, 18, 20 and 21 were previously presented. Claim 16 is amended to change its dependency back to Claim 14.

Claims 14, 16 and 18 depend directly or indirectly from Claim 4.

Claims 17, 20 and 21 depend directly or indirectly from Claim 6.

New Claim 22 reflects the comments appearing in the Examiner Interview Summary.

ARGUMENTS RE THE DETAILED ACTION

Reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) as obvious over Yasushi (JP 09-131531) alone or in view of Nishino et al. (USPN 4350613) are again requested.

The above references have been discussed in detail in the previously submitted response. Hence it is sufficient to state that Yasushi discloses nothing about a combination of titania and alumina for the carrier of the catalyst.

The catalyst of the invention with a carrier of titania and alumina combined is significantly superior to the catalyst with a carrier of titania or alumina alone. This is shown in the results shown in Table 3 of the subject application in respect to maximum temperature of the temperature allowed for the CO oxidation.

It is also superior to the catalyst on a silica support, as is evident from the results shown in the similar tabulation presented by Yasushi, note his Example 9.

It may be added that the data in Applicants' Table 3 make it evident that the titania/alumina combination is not a combination of equivalent substances.

In addition, the In re Kerkhoven (205 USPQ 1069) decision is concerned with method claims not composition claims, as is evident from the very first paragraph of the decision (underlining supplied):

Appellant claims a process for the production of particulate detergent compositions containing a mixture of anionic and nonionic active detergent materials. Appellant explains in his specification that the detergent-making art often prefers such detergents to achieve optimal detergent properties, and he notes that the most commonly used active detergent combination is a mixture of anionic fatty acid soaps, anionic synthetic non-soap detergents, and nonionic detergents. Detergents made from this combination of ingredients are called mixed-active detergents.

Nishino et al. is improperly combined with Yasushi since Nishino is not concerned with selective oxidation of CO in a gas of essentially hydrogen, i.e., a majority of hydrogen, page 23 of the subject application, the sentence at line 2.

Moreover, Nishino et al. disclose a carrier substantially composed of calcium aluminate and titanium oxide, not alumina and titanium dioxide as the subject claims require.

Certainly, neither of the above applied references lead one to the specific catalyst combination of Claim 22.

The Arena U.S. 4,496,780 patent was also considered at the noted interview.

Arena discloses an alkaline earth metal, (BaO) in Example 2, and nothing about a combination of titania and alumina for the carrier of the catalyst.

Arena does not deal with a hydrogen-containing gas for fuel cells.

Arena discloses a titanited support of alumina treated with titanium chloride with at most 5% titanium, col. 3, lines 26 to 30.

Courty et al., US 4,207,169, was also referred to at the interview. It discloses fundamentally a rhodium supported catalyst for steam dealkylation of aromatic hydrocarbons.

It is respectfully requested that the Examiner acknowledge in the usual manner the IDS submitted March 28, 2003, after the Official Action of January 24, 2003, to which attention was brought at the noted interview.

Favorable consideration of the claims here presented is solicited.

Respectfully submitted,

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